

ABSTRACT

Methods for configuring, maintaining connectivity in and utilizing an ATM network.

Neighboring switches share topology information and enable links to neighboring

5 switches for tag switching. Point-to-point tagged virtual connections are established between switches on the best and next-best paths learned from topology information.

Point-to-multipoint tagged virtual connections are established on the spanning tree path.

Multiple tag allocation requests are included in a single message to preserve bandwidth.

Next-best paths are established to reduce latency in event of link failure. Forwarding

10 operations may be performed in hardware to reduce latency during message forwarding.